

Q 1

Photosystems are located in _____.

A

Stroma

B

Chloroplast envelope

C

Thylakoid membranes

D

The intergrana

Q 2

Where does the bacteriophage replicate?

A

Human

B

Animal

C

Bacteria

D

Horse

Q 3

The large number of bundle fibers that joins the left and right cerebral hemispheres is called:

A

Broca's area

B

Lateral sulcus

C

Corpus callosum

D

thalamus

Q 4

The neurons responsible for converting various external stimuli that come from the environment into corresponding internal stimuli is called:

A

Motor nerve

B

sensory nerve

C

Both A and B

D

Mixed nerve

Q 5

Select the phase/s of breathing:

A

Inhalation

B

Exhalation

C

Both and A and B

D

vocal waves

Q 6

In biennials and perennials, low temperature stimulus is not received by which of the following?

A

Shoot apex of mature stem

B

Embryo of the seed

C

Leaves of the plants

D

all of these

Q 7

In most triploblasts after embryonic development the three layers are represented as?

A

Separate layers of cells

B

Structures associated with them

C

Their functions in body

D

Structures formed from them

Q 8

Seeds are dormant in which conditions?

A

lack of water

B

low temperature

C

severe winters

D

all of these

Q 9

The flagella originates from which part of the cell?

A

basal body

B

cell membrane

C

cell wall

D

capsule

Q 10

The affect of genetic drift increases as the population size?

A

increases

B

decreased

C

remains same

D

none of these

Q 11

Resolution of human eye is:

A

2.0 μm

B

2.0 mm

C

1.0 μm

D

1.0 mm

Q 12

Herpes simplex is caused by which virus?

A

adenovirus

B

Pox virus

C

influenza Virus

D

herpes virus

Q 13

Which of the following is true about sarcomeres?

A

actin filaments are only found in the I band

B

The sarcomeres contribute to the striated appearance of smooth muscle cells

C

Sarcomeres are functional units of skeletal and smooth muscle cells

D

The A band contains both actin and myosin filaments

Q 14

Glycolysis takes place in?

A

Nucleus

B

Cytosol

C

Mitochondria

D

Ribosomes

Q 15

Number of substrate molecules converted into product by one molecule of enzyme active site per unit time is called?

A

turnover number

B

substrate number

C

reaction number

D

none of these

Q 16

Composite of an organism's observable characters or traits is called?

A

genotype

B

phenotype

C

recombination

D

replication

Q 17

Garden snail belongs to which class of Mollusca?

A

Gastopoda

B

Cephalopoda

C

Myriapoda

D

None of them

Q 18

Breathing rate in humans at rest is:

A

10 to 15 times per minute

B

10 to 20 times per minute

C

80 to 120 times per minute

D

15 to 20 times per minute

Q 19

Central nervous system consists of:

A

brain and spinal cord

B

spinal nerves only

C

cerebellum and brain stem only

D

cerebrum and spinal column

Q 20

Nephridia are the excretory organs of members of which phylum?

A

Arthropoda

B

Cnidaria

C

Annelida

D

Mollusca

Q 21

The hinge joint and ball and socket joints are the types of:

A

freely movable joints

B

Slightly movable joints

C

Immovable joints

D

None of these

Q 22

During the menstrual cycle, which of the following events happens if a released egg does not become fertilised?

A

The lining of the womb wall stays built up.

B

The lining of the womb wall builds up again.

C

Another egg is immediately released.

D

The lining of the womb wall breaks down.

Q 23

Which virus causes the second major form of hepatitis?

A

Hepatitis A

B

Hepatitis B

C

Hepatitis C

D

Hepatitis D

Q 24

The sarcoplasmic reticulum has the ability to aid in muscle contraction by storing large amounts of which ion?

A

calcium

B

sodium

C

potassium

D

hydrogen

Q 25

Out of 31 pairs of spinal nerves, how many pairs of lumbar nerves are there?

A

5

B

10

C

12

D

15

Q 26

The cells which lack lysosomes would have difficulty in which of the following?

A

digesting food

B

storage of energy

C

protein packaging

D

moving cytoplasm

Q 27

The bacteriophage is shaped as?

A

rod

B

spherical

C

tadpole

D

helical

Q 28

The percentage of light absorbed by the leaf is?

A

0.2

B

0.15

C

0.05

D

0.01

Q 29

What are osteocytes?

A

white blood cell

B

bone cell

C

brain cell

D

none of these

Q 30

The primary function of cofactors is to?

A

assist in enzyme synthesis

B

assist in enzyme inhibition

C

assist in enzyme activity

D

both a and b

Q 31

During birth which of following act as birth canal?

A

oviduct

B

ovary

C

uterus

D

vagina

Q 32

Which of the following is basic function of bacterial capsule

A

protection from enviroment

B

protection from engulfment

C

protection from osmotic lysis

D

all of Above

Q 33

Where does the first stage of cellular respiration occur?

A

Cytosol

B

Membrane surface

C

nucleus

D

all of these

Q 34

Glycolipids in the plasma membrane are located at?

A

inner leaflet of the plasma membrane

B

The outer leaflet of the plasma membrane

C

Evenly distributed in the inner and outer leaflets

D

varies to cell types

Q 35

In human, the total inside capacity of lungs is about:

A

3.5 litres

B

2.5 litres

C

5 litres

D

6 litres

Q 36

Which of the following statements is not true of viruses?

A

Viruses have been successfully grown in pure cultures in test tubes

B

All viruses are obligate intracellular parasites

C

All viruses have either DNA or RNA as their genetic material

D

Viruses probably arose from small fragments of cellular chromosomes

Q 37

Which of the following is true about chloroplasts?

A

self replicating

B

found in underground parts of plant

C

involved in protein synthesis

D

pollination and dispersal of seeds

Q 38

The fine ends of the bronchioles are called:

A

bronchi

B

bronchioles

C

pharynx duct

D

alveolar ducts

Q 39

The process through which animals take oxygen (O_2) from the air and release carbon dioxide (CO_2) into the air is called

A

Breathing

B

Respiration

C

Diffusion

D

Osmosis

Q 40

What allows a bacteria to stain positively with gram stain?

A

The bacteria is anaerobic

B

The bacterial sample was pretreated with 3% ethanol

C

The bacteria's periplasmic space

D

The bacteria's thick peptidoglycan cell walls

Q 41

In icosahedral, in which the capsomers are arranged in _____ triangles

A

1

B

20

C

3

D

4

Q 42

Resumption of normal growth by a dormant embryo is called?

A

Seed dormancy

B

fruit ripening

C

germination

D

all of these

Q 43

Glycolipids and glycoproteins have structural role in which matrix structure of animal and bacterial cell?

A

extracellular

B

intracellular

C

both a and b

D

plasma membrane

Q 44

Antibodies play important role against microorganisms and other pathogens to which type of proteins do they belong?

A

Globular

B

Functional

C

fibrous

D

both a and b

Q 45

How many bones do humans have in the vertebral column?

A

52

B

25

C

33

D

34

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Q 46

A cofactor made of inorganic ion which is detachable is called?

A

prosthetic group

B

coenzyme

C

activator

D

cofactor

Q 47

Enzymes showing substrate specificity are specific to how many substrates?

A

1

B

3

C

2

D

4

Q 48

If a heterozygous individual shows the complete affect of both alleles, the type of inheritance would be?

A

Complete dominance

B

Non dominance

C

Incomplete dominance

D

codominance

Q 49

The genotype-phenotype distinction was proposed by?

A

darwin

B

mendell

C

Wilhelm Johannsen

D

none of these

Q 50

Eukaryotes can share which of the following structures with prokaryotes?

A

cell wall

B

nucleoid

C

golgi

D

mitochondria

Q 51

Alternation of generation is absent in which coelenterate?

A

Obelia

B

Jelly fish

C

Hydra

D

Sea anemone

Q 52

What event occurs in the menstrual cycle when the level of progesterone declines?

A

ovulation

B

menstruation

C

menopause

D

Fertilization

Q 53

Which of the following is an incorrect difference between a shark and a whale?

A

A shark's heart has only one chamber whereas a whale's heart has two chambers.

B

Shark gills are not covered by operculum whereas those in a whale are.

C

Sharks do not possess a swim bladder whereas whales do.

D

Sharks have placoid scales on their skin whereas whales don't.

Q 54

The envelope of an enveloped virus is derived from?

A

the mitochondrion of the cell

B

cell membrane of host cell

C

endoplasmic reticulum of the cell

D

none of these

Q 55

The lungs of lungfish are thought to have evolved from:

A

The swim bladder of cartilaginous fish.

B

The swim bladder of bony fish.

C

The swim bladder of lobe-finned fish

D

They evolved independently.

Q 56

To form a female zygote, the sperm cell must contribute which chromosome?

A

X

B

2X

C

Y

D

XY

Q 57

Complete breakdown of glucose molecule takes place in which of the following?

A

Alcoholic fermentation

B

Lactic acid fermentation

C

aerobic respiration

D

none of these

Q 58

Which of the following is not an evidence for evolution?

A

Fossil record

B

Common ancestor organisms

C

Vestigial structures

D

none of these

Q 58

Which of the following is not an evidence for evolution?

A

Fossil record

B

Common ancestor organisms

C

Vestigial structures

D

none of these

Q 59

Enzymes are produced in inactive form by the cell and enclosed in which of the following?

A

mesosomes

B

lysosomes

C

peroxisomes

D

all of these

Q 60

The left side of the body is controlled by:

A

left cerebral hemisphere

B

right cerebral hemisphere

C

Hippocampus

D

Corpus callosum

Q 61

Which of the following represents a phenotype?

A

X-linked recessive

B

Aa

C

Autosomal dominant

D

Brown hair

Q 62

The autonomic nervous system functions to

A

act on external environment

B

regulate the internal environment

C

transmit motor information to brain

D

none of these

Q 63

A cell with fully elastic wall is placed in hypertonic solution. What will not occur?

A

Change in cell size and shape

B

The whole cell will shrink

C

Cytoplasm shrinks from the cell wall and undergoes plasmolysis

D

Decreases in cell size

Q 64

For a protein molecule of 2000 amino acids, the mRNA will have a length of how many nucleotides?

A

3000

B

2000

C

6000

D

5000

Q 65

Under microscopic examination, which cellular structure would differentiate a plant cell from an animal cell?

A

nucleus

B

cell membrane

C

cytoplasm

D

cell vacuole

Q 66

The Urey-Miller experiment determined which of the following results?

A

DNA replicates by semiconservative replication

B

Cyanobacteria were responsible for the oxygenation of the atmosphere

C

The early atmosphere was composed of ammonia and methane

D

Organic molecules can arise from inorganic precursors

Q 67

Of the following, which one is a light gathering structure?

A

Antenna complex

B

reaction center

C

photosystem

D

none of these

Q 68

Methicillin-resistant *Staphylococcus aureus* is an antibiotic-resistant “superbug” that can cause deadly infections in humans. What would these Gram-positive bacteria look like under a microscope?

A

Purple spheres

B

Clear rods

C

Pink rods

D

Purple spirals

Q 68

Methicillin-resistant *Staphylococcus aureus* is an antibiotic-resistant “superbug” that can cause deadly infections in humans. What would these Gram-positive bacteria look like under a microscope?

A

Purple spheres

B

Clear rods

C

Pink rods

D

Purple spirals

Q 69

The capacitance of a capacitor is a measure of its ability to:...

A

store charge

B

store electric field

C

gain potential difference

D

store magnetic field

Q 70

Charge of photon is

A

0

B

positive

C

negative

D

positive/negative

Q 71

The speed of sound in a metal is approximately:

A

1500 m/s

B

5000 m/s

C

330 m/s

D

50 m/s

Q 72

Decrease in velocity per unit time is called

A

acceleration

B

positive acceleration

C

deceleration

D

uniform acceleration

Q 73

Internal energy of the system depends on:.....

A

initial and final states of the system and the path from initial to final state

B

initial and final states of the system only

C

initial state of the system and the path from initial to final state

D

the path from initial to final state

Q 74

The speed of sound in water is approximately:

A

1500 m/s

B

5000 m/s

C

330 m/s

D

50 m/s

Q 75

The magnetic flux (Φ) linked with a coil is related to the number of turns (N) of the coil as:

A

$$f \propto N$$

B

$$f \propto 1/N$$

C

$$f \propto 1/(N)^2$$

D

$$f \propto N^2$$

Q 76

What is the relationship between Power, Current and voltage

A

$$P=V/I$$

B

$$P=VI$$

C

$$2P=I+V$$

D

All of them

Q 77

Which ion represents alpha particles

A

H^+

B

C^+

C

Na^+

D

He^+

Q 78

Which of the following is a type of rectifier

A

half wave

B

full wave

C

bridge

D

All of the above

Q 79

in case of simple pendulum total energy remains

A

variable

B

constant

C

infinity

D

zero

Q 80

Newton's first law falsified

A

Galileo theory

B

Aristotle theory

C

Einstein's theory

D

Maxwell's theory

Q 81

When heat is given to isobaric process then

A

Work is done by the gas

B

Internal energy of gas decreases

C

Both (a) and b)

D

None of them

Q 81

When heat is given to isobaric process then

A

Work is done by the gas

B

Internal energy of gas decreases

C

Both (a) and b)

D

None of them

Q 82

A straight moving bus takes a sharp right turn. What will happen to the passengers sitting inside the bus?

A

They will tilt rightwards

B

They will tilt leftwards

C

They will stay the way they were

D

They will start jumping

Q 83

Frequency of a travelling wave is 2000 Hz. Its speed is 300m/s. What is its wavelength?

A

$20/3$ m

B

20×3 m

C

$3/20$ m

D

$2/3$ m

Q 84

The output voltage of a rectifier is

A

smooth

B

pulsating

C

perfectly direct

D

alternating

Q 85

The activity of a radioactive isotope decreases from 8000 to 10000 in 60 days. The half life of isotope will be

A

10 year

B

20 years

C

30 years

D

40 years

Q 86

Which of the following is the rapid process

A

conduction

B

radiation

C

convection

D

all of these

Q 87

What will happen in a time of 7 hours, if a radioactive substance has an average life of 7 hours?

A

Half of the active nuclei decay

B

Less half of the active nuclei decay

C

More than half of the active nuclei decay

D

All active nuclei decay

Q 88

A radioactive element emits 200 particles per second. After three hours 25 particles per second are emitted. The half life period of element will be

A

80 minutes

B

70 minutes

C

60 minutes

D

50 minutes

Q 89

Gamma rays travel ____ distance

A

long

B

short

C

absorbed immediately

D

never ending distance

Q 90

Half wave rectifier passes only

A

lower half cycle

B

upper half cycle

C

both cycles

D

none of them

Q 91

$C_{eq} = C_1 + C_2 + C_3 + \dots + C_n$ is the combination in

A

Parallel

B

Series

C

Both of them

D

None of them

Q 92

In Lorentz force, magnetic force is

A

work force

B

deflecting force

C

resistive force

D

none of these

Q 93

The spectrum of white light lies

A

above 300 nm

B

below 300 nm

C

in between UV to IR

D

none of these

Q 94

The spectrum of perfect black body is

A

line

B

continuous

C

band

D

all of these

Q 95

Wave particle duality does not explain

A

momentum

B

frequency

C

mass

D

all of these

Q 96

At the highest point of trajectory which of the following quantities is zero

A

horizontal velocity

B

total velocity

C

vertical velocity

D

none of these

Q 97

What is kinetic energy of body 5kg and momentum 15 kg.m/sec

A

30 J

B

55 J

C

50 J

D

22.5 J

Q 98

Which of the following is an example of isothermal process?

A

The rapid escape of air from a burst tyre

B

The rapid expansion and compression of air through which a sound wave is passing

C

Cloud formation in the atmosphere

D

slow compression or expansion of gas

Q 99

An EMF source of 8.0 V is connected to a purely resistive electrical appliance. An electric current of 2.0 A flows through it. What is the resistance offered by the electrical appliances?

A

4 ohm

B

6 ohm

C

2 ohm

D

3 ohm

Q 100

You have three capacitors, each of $2\ \mu\text{C}$. In which of the following combinations of the three capacitors, the resultant capacitance is $5\ \mu\text{C}$?

A

all three capacitors in series

B

two capacitors are in series, one in parallel

C

two capacitors are in parallel, one in series

D

all three capacitors in parallel

Q 101

For an adiabatic process, the first law of thermodynamics can be written as:...

A

work done by the system = decrease in internal energy of system

B

work done by the system = increase in internal energy of system

C

work done on the system = decrease in internal energy of system

D

work done on the system = decrease in internal energy of system + heat released

Q 102

A full wave rectifier passes _____ into positive cycles

A

lower half cycle

B

upper half cycle

C

both cycles

D

none of them

Q 103

Which quantity is a scalar quantity

A

angular displacement

B

angular velocity

C

angular acceleration

D

none of these

Q 104

A particle moves from point P(1,2,3) to Q(2,1,4) under the action of a constant force $F = (2\mathbf{i} + \mathbf{j} + \mathbf{k})$, work done by force is

A

2 J

B

4 J

C

16 J

D

8 J

Q 105

An a.c. generator consists of a coil of 50 turns and an area 2.5 m^2 rotating at an angular speed of 60 rad s^{-1} in a uniform magnetic field of 0.3 T between two fixed pole pieces. What is the flux through the coil, when the current is zero

A

Maximum

B

Minimum

C

Zero

D

Independent

Q 106

In an A.C. coordinate potentiometer, the currents in the phase and quadrature potentiometer are adjusted to be

A

Out of phase by 90°

B

Out of phase by 60°

C

Out of phase by 30°

D

Out of phase by 0°

Q 107

Which radiation is used in greenhouse effect

A

UV

B

IR

C

x-rays

D

gamma-rays

Q 108

$e/m =$

A

mv/Br

B

v/Br

C

r/Bv

D

B/vr

Q 109

A longitudinal standing wave, in second harmonic mode, is established in a tube open at only one end. The frequency of the standing wave is 660 Hz, and the speed of sound in air is 343 m/s. What is the length of the tube?

A

twice as fast

B

half as fast

C

four times as fast

D

the same

Q 110

Electric field at the centre of square when $1\mu\text{C}$ charge are placed at its each corner is

A

Zero

B

2 Volt/m

C

2 Volt/m

D

4 Volt/m

Q 111

An example of non-ohmic resistor is

A

Diode

B

Tungsten wire

C

Carbon resistance

D

Copper wire

Q 112

Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.

A

any doubler

B

any tripler

C

any multiplication

D

none of them

Q 113

When gamma photon is entered in nucleus it_____

A

de-excite the atom

B

excite the atom

C

scatter by atom

D

none of these

Q 114

A stationary wave is formed in a pipe which is open at one end. If length of pipe is 5 cm, then what is the maximum possible wavelength of the wave.?

A

5 cm

B

10 cm

C

15 cm

D

20 cm

Q 115

Internal resistance of a battery is _____ ohm, if, $E=10V$, $V_t=9V$, $I=1A$

A

1

B

0.1

C

0.01

D

None of these

Q 116

Lorentz force in electric and magnetic field is

A

$$F = qv[E + B]$$

B

$$qE[v + B]$$

C

$$qvB$$

D

$$q[E + vB]$$

Q 117

Internal energy remains same throughout the process in

A

adiabatic process

B

isothermal process

C

cyclic process

D

both (i) and (ii)

Q 118

If magnetic field is doubled then magnetic energy density becomes

A

four times

B

two times

C

three times

D

six times

Q 119

Radon-222 has 136 neutrons, how many neutrons are there in Radon-220

A

131

B

134

C

136

D

none of these

Q 120

A sound wave has a wavelength λ . What is the minimum possible distance between two points with phase difference 90 deg?

A

$$\lambda/2$$

B

$$3\lambda/2$$

C

$$5\lambda/2$$

D

$$5\lambda/4$$

Q 121

Which set of elements have three isotopes

A

O,H

B

O,Cl

C

Cl,Hg

D

All of them

Q 122

A bullet moving with a speed of 100 ms^{-1} can just penetrate two planks of equal thickness. Then, the number of such planks penetrated by the same bullet when the speed is doubled will be:

A

6

B

10

C

4

D

8

Q 123

A capacitor stores $5.3 \times 10^{-5} \text{ C}$ of charge when connected to a 6.0-V battery. How much charge does the capacitor store when connected to a 9.0-V battery?

A

79.5 μC

B

35.3 μC

C

79.5 pC

D

35.3 pC

Q 124

The angular acceleration is maximum when

A

$r = \text{maximum}$

B

$r = 0$

C

$r = 1$

D

none of these

Q 125

Oxidation number of an ion with single element is same as

A

Ionic radius

B

Charge on Ion

C

Number of electrons in ion

D

Number of protons in ion

Q 126

The reaction of two similar carbonyl compounds to give aldol product is called as ____?

A

Condensation reaction

B

Dehydration reaction

C

Disproportionation reaction

D

All of these

Q 127

All elements get their stabilization to attain nearest ____ configuration

A

alkali metals

B

noble metals

C

alkaloids

D

Noble gases

Q 128

Paramagnetic behavior of transition elements is due to presence of _____?

A

s electrons

B

Unpaired electrons

C

Paired electrons

D

Outer d electrons

Q 129

Temperature of the surrounding falls during_____?

A

Endothermic reactions

B

Exothermic reactions

C

Exergonic reactions

D

None of these

Q 130

Le Chatelier Principle is about

A

Reaction Mixture

B

Reactants

C

Equilibrium Mixture

D

Products

Q 131

The number of neutrons in H_2SO_4 are

A

5

B

49

C

48

D

44

Q 132

Which of the following reactions are not given by benzene?

A

Elimination

B

Addition

C

Substitution

D

Dehydration

Q 133

Which of the following method is used to prepare acetic acid ?

A

Distillation

B

Fermentation

C

Dehydration

D

Ozonolysis

Q 134

In the rate equation $R=k[A]^a[B]^b$, a and b as exponents decides

A

Direction of reaction

B

Extent of Reaction

C

Order of Reaction

D

Temperature of Reaction

Q 135

The presence of double bond in a compound shows that the compound has_____?

A

Saturation

B

All single bonds

C

Unsaturation

D

Substitution

Q 136

In IUPAC naming alcohols are named as_____?

A

Alkanal

B

Alkyl alcohols

C

Alkanol

D

Alkenol

Q 137

Which of the following element is not usually present in all proteins?

A

Carbon

B

Hydrogen

C

Nitrogen

D

Sulphur

Q 138

Find the amphoteric oxide

A

CaO_2

B

CO_2

C

SnO_2

D

SiO_2

Q 139

Which of the following is an example of Nucleophile?

A



B



C



D



Q 140

What is the color of silver acetylide, $\text{AgC}\equiv\text{CAg}$?

A

Red

B

White

C

Brown

D

Pinkish

Q 141

Sulphate ion is

A

Triangular Planar

B

Cubic

C

Cubic Face Centred

D

Tetrahedral

Q 142

The simplest member of organic compounds is?

A

Methanol

B

Methane

C

Formaldehyde

D

Formic acid

Q 143

In which of the following body part protein is not present ?

A

Skin

B

Hair

C

Nails

D

Bones

Q 144

A gas having volume of 1 dm^3 is enclosed in a vessel at 1°C and 2.5 atm . This gas is allowed to expand until new pressure is 2 (No Suggestions) will be new volume if the temperature is maintained at 273 K ?

A

12 dm^3

B

1.25 dm^3

C

1 dm^3

D

12.3 dm^3

Q 145

Reduction of carboxylic acids into alkanes in the presence of HI/P, COOH is reduced to_____?

A

CH₄

B

C₂H₆

C

CH₂

D

None of these

Q 146

Phenol was obtained from _____ first time?

A

Coke

B

Pitch

C

Aromatic compounds

D

Coal tar

Q 147

Which pair shows hydrogen bonding among them

A

ammonia & carbon

B

acetone and Ker

C

acetone and chloroform

D

water & Neon

Q 148

A substance which does not appear in balanced chemical reaction is called

A

Buffer

B

Spectator Substance

C

Reaction Intermediate

D

None of these

Q 149

Heat absorbed by a substance at constant pressure is equal to__?

A

ΔG

B

ΔH

C

ΔE

D

$\Delta H - \Delta E$

Q 150

_____ is used to measure atomic radii

A

Gamma rays

B

alpha rays

C

X-rays

D

beta rays

Q 151

The reaction in which a nucleophile replaces another atom present in a compound is called as ____?

A

Nucleophilic elimination reaction

B

Nucleophilic addition reaction

C

Nucleophilic substitution reaction

D

All of these

Q 152

An aromatic compound that can be obtained from coal tar is

A

benzene

B

toluene

C

phenol

D

diphenylmethane

Q 153

Which of the following isomerism is present in $\text{CH}_3\text{CH}_2\text{OH}$ and CH_3OCH_3 ?

A

Metamerism

B

Chain isomerism

C

Tautomerism

D

Functional group isomerism

Q 154

Which one of them is used as an automobile antifreeze

A

Ethanol

B

ethene

C

ethylene glycol

D

propene

Q 155

The bonding pair of electron are equally shared b/w the atoms in

A

HF

B

HCl

C

H₂O

D

H₂

Q 156

In the production of wrought iron Mg Si and P are removed in the form of

A

Oxides

B

Silicates

C

Slag

D

Carbonates

Q 157

The name protein is derived from _____ word proteios meaning _____.

A

Greek, Important.

B

French, Prime Importance

C

Greek, Functional

D

Greek, Prime Importance

Q 158

Due to less polarizability of Fluorine, it boils at ____ C

A

-188.1

B

188.1

C

184.4

D

184.4

Q 159

NaNO_3 and CaCO_3 are

A

allotropes

B

amorphous

C

isomorphous

D

polymorphous

Q 160

Which of the following compounds can be prepared by using grignard reagents?

A

Alkanes

B

Alcohols

C

Carboxylic acids

D

All of these

Q 161

Which of the following undergoes cannizzaro reaction_____?

A

Benzaldehyde

B

Acetone

C

Benzophenone

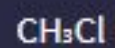
D

Benzyl alcohol

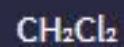
Q 162

What is the formula of chloroform?

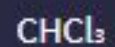
A



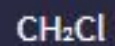
B



C



D



Q 163

The radius of an electron orbit in a hydrogen atom is of the order of

A

1-8 m

B

1-1 m

C

1-11 m

D

1-13 m

Q 164

What one is the correct geometry of acetal?

A

Trigonal

B

Linear

C

Tetrahedral

D

Square planer

Q 165

Kinetic Energy is the sum of

A

Rotational & Vibrational

B

Translation & Rotational

C

Rotational, Vibrational and Translation

D

All of these

Q 166

Aldehyde react with Ammonia and form_____?

A

Amine

B

Imine

C

Nitrile

D

Hydrazones

Q 167

Heat of combustion is always a_____?

A

Exothermic reaction

B

Endothermic reaction

C

Spontaneous reaction

D

nonspontaneous reaction

Q 168

When a catalyst is added to a reversible reaction, at equilibrium state the value of equilibrium constant

A

decreases

B

Increases

C

Remains unchanged

D

First decrease then increase

Q 169

Sucrose is converted into glucose & fructose by:

A

Invertase

B

Urease

C

Glycolysis

D

None

Q 170

_____conducts nerve impulse in brain

A

serotonin

B

aspartame

C

ascorbic acid

D

hydrazine

Q 171

Alkyl halides generally give which type of elimination reactions?

A

alpha-elimination

B

gamma-elimination

C

beta-elimination

D

syn-elimination

Q 172

Pentene has how many isomers?

A

2

B

1

C

5

D

3

Q 173

Order of reaction can be determined

A

Theoretically

B

Experimentally

C

Summing up the exponents of rate equation

D

All of these

Q 174

Dalton's law of partial pressure is used to derive the relation between K_c and

A

Temperature

B

Universal Gas constant

C

Δn

D

K_p

Q 175

In the presence of KF, AlF_3 is soluble in HF, find the complex formed

A



B



C



D



Q 176

Kinetic molecular theory was proposed by

A

Berzelius

B

Boltzmann

C

Bernoulli

D

Maxwell

Q 177

Caustic Soda is made by electrolysis of concentrated solution of NaCl in

A

Nelson's Cell

B

Hg - Cell

C

Castner Kellner Cell

D

All of these

Q 178

Brass and bronze have one metal in common?

A

Zn

B

Hg

C

Cu

D

Fe

Q 179

The tendencies of elements to have relation with each other can be understand by

A

Lowry concept

B

Pauling concept

C

Lewis concept

D

Arrhenius concept

Q 180

Aldehydes and ketones react with hydroxyl amine and produce?

A

Imine

B

Oxime

C

Aldole

D

Nitrile

Q 181

Lions _____ in Africa.

A

live

B

living

C

are living

D

lives

Q 182

When Maria saw the _____ sign on the box, she did not touch the box.

A

strange

B

danger

C

new

D

written

Q 183

I am _____ tea now.

A

taking

B

takes

C

took

D

take

Q 184

I _____ him for a long time.

A

know

B

have known

C

am knowing

D

knew

Q 185

Had you worked hard (A)/ from the beginning (B)/ of the term (C)/ you will have passed. (D)

A

Had you worked hard

B

from the beginning

C

of the term

D

you will have passed.

Q 186

Choose the correct sentence.

A

Does your train leave before eight o'clock?

B

Does your train leave before eight o clock?

C

does your train leave before eight o'clock

D

does your train leave before eight o'clock?

Q 187

I think _____ man over there is very ill. He can't stand on his feet.

A

a

B

an

C

the

D

no article

Q 188

My friend _____ (suffer) from cholera since August.

A

suffer

B

suffered

C

suffering

D

is suffering

Q 189

Choose the correct sentence.

A

Did you know that they're leaving the city for good.

B

Did you know that they're leaving the city for good?

C

Did you know that the'yre leaving the city for good?

D

Did you know that theyre leaving the city for good.

Q 190

The young widow always _____ white clothes.

A

wear

B

wears

C

was wearing

D

would wear

Q 191

nemesis

A

associate

B

antagonist

C

soul-mate

D

ally

Q 192

Choose the correct spelling of the word

A

believe

B

belive

C

bileve

D

beleave

Q 193

The old man _____ (yell) at the boys who teased him.

A

yell

B

yelled

C

yelling

D

yells

Q 194

The police _____ released any information about the case.

A

have

B

had

C

hasn't

D

haven't

Q 195

Mr. Jones _____ the company since 1990.

A

runs

B

running

C

has run

D

ran

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Q 196

His shabby clothes and unkempt hair gave him a _____ appearance.

A

discontented

B

disreputable

C

disrespectful

D

disputatious

Q 197

Choose the correct spelling of the word

A

Shekspeare

B

Shakspare

C

Shakespare

D

Shakespeare

Q 198

Choose the correct sentence.

A

John asked, "when are we going on a vacation?"

B

John asked "When are we going on a vacation?"

C

John asked, when are we going on a vacation?

D

John asked, "When are we going on a vacation?"

Q 199

Sam _____ in the garden now.

A

digs

B

digging

C

is digging

D

is digging

Q 200

She will _____ her lesson for two months next week.

A

has learnt

B

have been learning

C

has been learning

D

has been learns

Q 201

Fact 1 A boy have a four cars Fact 2 Two of the cars are red Fact 3 He have one sports car If the above three statements are facts than which of the following statement will also be a fact I. The boy have red sports car II. He have 2 corolla III. His favorite color is red

A

Only I and II

B

Only II

C

Only III

D

None of the statement is a fact

Q 202

Statements : Some papers are pens. Angle is a paper. Conclusions : I. Angle is not a pen. II. Angle is a PEN

A

Only conclusion II follows

B

Either I or II follows

C

Neither I nor II follows

D

Both I and II follows

Q 203

1 Choose which one is the different number from the following

A

125

B

131

C

130

D

138

Q 204

In which year Pakistan and China joint Venture of JF7 Thunder Aircraft started?

A

1997

B

2003

C

1999

D

Both A and B

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Q 205

Renown , Reputation, Abeyance, ?

A

Misery

B

Humble

C

Discontinuation

D

Best

Q 206

I. Kate Winslet categorically has stated that she will work on serious roles in the film. II. The last movie of Kate Winslet, in which she was casted as fashion model, was not successful.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect.

C

Both statements I and II are independent causes

D

Both statements I and II are the effects of independent cause.

Q 207

Statement The Management of School M has decided to give free breakfast from next academic year to all the students in its primary section through its canteen even though they will not get any government grant. Courses of Action (I) The school will have to admit many poor students who will seek admission for the next academic year. (II) The canteen facilities and utensils have to be checked and new purchases to be made to equip it properly. (III) Funds will have to be raised to support the scheme for years to come.

A

Only II and III follows

B

Only III and I follow

C

Only I and II follow

D

Only I follows

Q 208

Country with the highest muslim population is _____

A

Pakistan

B

Malaysia

C

Indonesia

D

Iran

Q 209

Statement Should the public sector undertakings be allowed to adopt a hire-and-fire policy?

Arguments (I) Yes, as this will help the public sector undertakings to get rid of non-performing employees and will also help to reward the performing employees. (II) No, the management may not be able to implement the policy in an unbiased manner and the employees will suffer due to the high-handedness of the management.

A

If only argument I is strong.

B

If only argument II is strong

C

If both I and II are strong.

D

If neither I nor II is strong

Q 210

Statement: There has been a high increase in the incidents of atrocities against women in the city during the past few months. The police authority has been unable to nab the culprits who are committing crime against women.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect

C

Both the statements I and II are independent causes

D

Both the statements I and II are effects of independent causes

Q1

Which virus causes the second major form of hepatitis?

A

Hepatitis A

B

Hepatitis B

C

Hepatitis C

D

Hepatitis D

Q2

The process through which animals take oxygen (O_2) from the air and release carbon dioxide (CO_2) into the air is called

A

Breathing

B

Respiration

C

Diffusion

D

Osmosis

Q3

In biennials and perennials, low temperature stimulus is not received by which of the following?

A

Shoot apex of mature stem

B

Embryo of the seed

C

Leaves of the plants

D

all of these

Q4

Photosystems are located in _____.

A

Stroma

B

Chloroplast envelope

C

Thylakoid membranes

D

The intergrana

Q5

Where does the bacteriophage replicate?

A

Human

B

Animal

C

Bacteria

D

Horse

Q6

The large number of bundle fibers that joins the left and right cerebral hemispheres is called:

A

Broca's area

B

Lateral sulcus

C

Corpus callosum

D

thalamus

Q7

The neurons responsible for converting various external stimuli that come from the environment into corresponding internal stimuli is called:

A

Motor nerve

B

sensory nerve

C

Both A and B

D

Mixed nerve

Q8

Select the phase/s of breathing:

A

Inhalation

B

Exhalation

C

Both and A and B

D

vocal waves

Q9

In most triploblasts after embryonic development the three layers are represented as?

A

Separate layers of cells

B

Structures associated with them

C

Their functions in body

D

Structures formed from them

Q10

Seeds are dormant in which conditions?

A

lack of water

B

low temperature

C

severe winters

D

all of these

Q11

The flagella originates from which part of the cell?

A

basal body

B

cell membrane

C

cell wall

D

capsule

Q12

The affect of genetic drift increases as the population size?

A

increases

B

decreased

C

remains same

D

none of these

Q13

Resolution of human eye is:

A

2.0 μm

B

2.0 mm

C

1.0 μm

D

1.0 mm

Q14

Herpes simplex is caused by which virus?

A

adenovirus

B

Pox virus

C

influenza Virus

D

herpes virus

Q15

Which of the following is true about sarcomeres?

A

actin filaments are only found in the I band

B

The sarcomeres contribute to the striated appearance of smooth muscle cells

C

Sarcomeres are functional units of skeletal and smooth muscle cells

D

The A band contains both actin and myosin filaments

Q16

Number of substrate molecules converted into product by one molecule of enzyme active site per unit time is called?

A

turnover number

B

substrate number

C

reaction number

D

none of these

Q17

Composite of an organism's observable characters or traits is called?

A

genotype

B

phenotype

C

recombination

D

replication

Q18

Garden snail belongs to which class of Mollusca?

A

Gastopoda

B

Cephalopoda

C

Myriapoda

D

None of them

Q19

Breathing rate in humans at rest is:

A

10 to 15 times per minute

B

10 to 20 times per minute

C

80 to 120 times per minute

D

15 to 20 times per minute

Q20

Central nervous system consists of:

A

brain and spinal cord

B

spinal nerves only

C

cerebellum and brain stem only

D

cerebrum and spinal column

Q21

Nephridia are the excretory organs of members of which phylum?

A

Arthropoda

B

Cnidaria

C

Annelida

D

Mollusca

Q22

The hinge joint and ball and socket joints are the types of:

A

freely movable joints

B

Slightly movable joints

C

Immovable joints

D

None of these

Q23

During the menstrual cycle, which of the following events happens if a released egg does not become fertilised?

A

The lining of the womb wall stays built up.

B

The lining of the womb wall builds up again.

C

Another egg is immediately released.

D

The lining of the womb wall breaks down.

Q24

The sarcoplasmic reticulum has the ability to aid in muscle contraction by storing large amounts of which ion?

A

calcium

B

sodium

C

potassium

D

hydrogen

Q25

Out of 31 pairs of spinal nerves, how many pairs of lumbar nerves are there?

A

5

B

10

C

12

D

15

Q26

The cells which lack lysosomes would have difficulty in which of the following?

A

digesting food

B

storage of energy

C

protein packaging

D

moving cytoplasm

Q27

The bacteriophage is shaped as?

A

rod

B

spherical

C

tadpole

D

helical

Q28

The percentage of light absorbed by the leaf is?

A

0.2

B

0.15

C

0.05

D

0.01

Q29

What are osteocytes?

A

white blood cell

B

bone cell

C

brain cell

D

none of these

Q30

The primary function of cofactors is to?

A

assist in enzyme synthesis

B

assist in enzyme inhibition

C

assist in enzyme activity

D

both a and b

Q31

Which of the following is basic function of bacterial capsule

A

protection from enviroment

B

protection from engulfment

C

protection from osmotic lysis

D

all of Above

Q32

Where does the first stage of cellular respiration occur?

A

Cytosol

B

Membrane surface

C

nucleus

D

all of these

Q33

Glycolipids in the plasma membrane are located at?

A

inner leaflet of the plasma membrane

B

The outer leaflet of the plasma membrane

C

Evenly distributed in the inner and outer leaflets

D

varies to cell types

Q34

In human, the total inside capacity of lungs is about:

A

3.5 litres

B

2.5 litres

C

5 litres

D

6 litres

Q35

Which of the following statements is not true of viruses?

A

Viruses have been successfully grown in pure cultures in test tubes

B

All viruses are obligate intracellular parasites

C

All viruses have either DNA or RNA as their genetic material

D

Viruses probably arose from small fragments of cellular chromosomes

Q36

Which of the following is true about chloroplasts?

A

self replicating

B

found in underground parts of plant

C

involved in protein synthesis

D

pollination and dispersal of seeds

Q37

The fine ends of the bronchioles are called:

A

bronchi

B

bronchioles

C

pharynx duct

D

alveolar ducts

Q38

What allows a bacteria to stain positively with gram stain?

A

The bacteria is anaerobic

B

The bacterial sample was pretreated with 3% ethanol

C

The bacteria's periplasmic space

D

The bacteria's thick peptidoglycan cell walls

Q39

In icosahedral, in which the capsomers are arranged in _____ triangles

A

1

B

20

C

3

D

4

Q40

Resumption of normal growth by a dormant embryo is called?

A

Seed dormancy

B

fruit ripening

C

germination

D

all of these

Q41

Glycolipids and glycoproteins have structural role in which matrix structure of animal and bacterial cell?

A

extracellular

B

intracellular

C

both a and b

D

plasma membrane

Q42

Antibodies play important role against microorganisms and other pathogens to which type of proteins do they belong?

A

Globular

B

Functional

C

fibrous

D

both a and b

Q43

How many bones do humans have in the vertebral collumn?

A

52

B

25

C

33

D

34

Q44

A cofactor made of inorganic ion which is detachable is called?

A

prosthetic group

B

coenzyme

C

activator

D

cofactor

Q45

Enzymes showing substrate specificity are specific to how many substrates?

A

1

B

3

C

2

D

4

Q46

The genotype-phenotype distinction was proposed by?

A

darwin

B

mendell

C

Wilhelm Johannsen

D

none of these

Q47

Eukaryotes can share which of the following structures with prokaryotes?

A

cell wall

B

nucleoid

C

golgi

D

mitochondria

Q48

Alternation of generation is absent in which coelenterate?

A

Obelia

B

Jelly fish

C

Hydra

D

Sea anemone

Q49

What event occurs in the menstrual cycle when the level of progesterone declines?

A

ovulation

B

menstruation

C

menopause

D

Fertilization

Q50

Which of the following is an incorrect difference between a shark and a whale?

A

A shark's heart has only one chamber whereas a whale's heart has two chambers.

B

Shark gills are not covered by operculum whereas those in a whale are.

C

Sharks do not possess a swim bladder whereas whales do.

D

Sharks have placoid scales on their skin whereas whales don't.

Q51

The envelope of an enveloped virus is derived from?

A

the mitochondrion of the cell

B

cell membrane of host cell

C

endoplasmic reticulum of the cell

D

none of these

Q52

The lungs of lungfish are thought to have evolved from:

A

The swim bladder of cartilaginous fish.

B

The swim bladder of bony fish.

C

The swim bladder of lobe-finned fish

D

They evolved independently.

Q53

Complete breakdown of glucose molecule takes place in which of the following?

A

Alcoholic fermentation

B

Lactic acid fermentation

C

aerobic respiration

D

none of these

Q54

Which of the following is not an evidence for evolution?

A

Fossil record

B

Common ancestor organisms

C

Vestigial structures

D

none of these

Q55

Enzymes are produced in inactive form by the cell and enclosed in which of the following?

A

mesosomes

B

lysosomes

C

peroxisomes

D

all of these

Q56

The left side of the body is controlled by:

A

left cerebral hemisphere

B

right cerebral hemisphere

C

Hippocampus

D

Corpus callosum

Q57

Which of the following represents a phenotype?

A

X-linked recessive

B

Aa

C

Autosomal dominant

D

Brown hair

Q58

The autonomic nervous system functions to

A

act on external environment

B

regulate the internal environment

C

transmit motor information to brain

D

none of these

Q59

A cell with fully elastic wall is placed in hypertonic solution. What will not occur?

A

Change in cell size and shape

B

The whole cell will shrink

C

Cytoplasm shrinks from the cell wall and undergoes plasmolysis

D

Decreases in cell size

Q60

Under microscopic examination, which cellular structure would differentiate a plant cell from an animal cell?

A

nucleus

B

cell membrane

C

cytoplasm

D

cell vacuole

Q61

The Urey-Miller experiment determined which of the following results?

A

DNA replicates by semiconservative replication

B

Cyanobacteria were responsible for the oxygenation of the atmosphere

C

The early atmosphere was composed of ammonia and methane

D

Organic molecules can arise from inorganic precursors

Q62

Of the following, which one is a light gathering structure?

A

Antenna complex

B

reaction center

C

photosystem

D

none of these

Q63

Methicillin-resistant *Staphylococcus aureus* is an antibiotic-resistant “superbug” that can cause deadly infections in humans. What would these Gram-positive bacteria look like under a microscope?

A

Purple spheres

B

Clear rods

C

Pink rods

D

Purple spirals

Q64

The capacitance of a capacitor is a measure of its ability to:...

A

store charge

B

store electric field

C

gain potential difference

D

store magnetic field

Q65

Charge of photon is

A

0

B

positive

C

negative

D

positive/negative

Q66

The speed of sound in a metal is approximately:

A

1500 m/s

B

5000 m/s

C

330 m/s

D

50 m/s

Q67

Decrease in velocity per unit time is called

A

acceleration

B

positive acceleration

C

deceleration

D

uniform acceleration

Q68

Glycolysis takes place in?

A

Nucleus

B

Cytosol

C

Mitochondria

D

Ribosomes

Q69

During birth which of following act as birth canal?

A

oviduct

B

ovary

C

uterus

D

vagina

Q70

The magnetic flux (Φ) linked with a coil is related to the number of turns (N) of the coil as:

A

$$\Phi \propto N$$

B

$$\Phi \propto 1/N$$

C

$$\Phi \propto 1/N^2$$

D

$$\Phi \propto N^2$$

Q71

What is the relationship between Power, Current and voltage

A

$$P=V/I$$

B

$$P=VI$$

C

$$2P=I+V$$

D

All of them

Q72

Which ion represents alpha particles

A

H^+

B

C^+

C

Na^+

D

He^+

Q73

in case of simple pendulum total energy remains

A

variable

B

constant

C

infinity

D

zero

Q74

Newton's first law falsified

A

Galileo theory

B

Aristotle theory

C

Einstein's theory

D

Maxwell's theory

Q75

When heat is given to isobaric process then

A

Work is done by the gas

B

Internal energy of gas decreases

C

Both (a) and b)

D

None of them

Q76

A straight moving bus takes a sharp right turn. What will happen to the passengers sitting inside the bus?

A

They will tilt rightwards

B

They will tilt leftwards

C

They will stay the way they were

D

They will start jumping

Q77

Frequency of a travelling wave is 2000 Hz. Its speed is 300m/s. What is its wavelength?

A

$20/3$ m

B

20×3 m

C

$3/20$ m

D

$2/3$ m

Q78

The output voltage of a rectifier is

A

smooth

B

pulsating

C

perfectly direct

D

alternating

Q79

The activity of a radioactive isotope decreases from 8000 to 10000 in 60 days. The half life of isotope will be

A

10 year

B

20 years

C

30 years

D

40 years

Q80

What will happen in a time of 7 hours, if a radioactive substance has an average life of 7 hours?

A

Half of the active nuclei decay

B

Less half of the active nuclei decay

C

More than half of the active nuclei decay

D

All active nuclei decay

Q81

A radioactive element emits 200 particles per second. After three hours 25 particles per second are emitted. The half life period of element will be

A

80 minutes

B

70 minutes

C

60 minutes

D

50 minutes

Q82

Gamma rays travel ____ distance

A

long

B

short

C

absorbed immediately

D

never ending distance

Q83

Half wave rectifier passes only

A

lower half cycle

B

upper half cycle

C

both cycles

D

none of them

Q84

$C_{eq} = C_1 + C_2 + C_3 + \dots + C_n$ is the combination in

A

Parallel

B

Series

C

Both of them

D

None of them

Q85

In Lorentz force, magnetic force is

A

work force

B

deflecting force

C

resistive force

D

none of these

Q86

The spectrum of white light lies

A

above 300 nm

B

below 300 nm

C

in between UV to IR

D

none of these

Q87

The spectrum of perfect black body is

A

line

B

continuous

C

band

D

all of these

Q88

At the highest point of trajectory which of the following quantities is zero

A

horizontal velocity

B

total velocity

C

vertical velocity

D

none of these

Q89

What is kinetic energy of body 5kg and momentum 15 kg.m/sec

A

30 J

B

55 J

C

50 J

D

22.5 J

Q90

Which of the following is an example of isothermal process?

A

The rapid escape of air from a burst tyre

B

The rapid expansion and compression of air through which a sound wave is passing

C

Cloud formation in the atmosphere

D

slow compression or expansion of gas

Q91

An EMF source of 8.0 V is connected to a purely resistive electrical appliance. An electric current of 2.0 A flows through it. What is the resistance offered by the electrical appliances?

A

4 ohm

B

6 ohm

C

2 ohm

D

3 ohm

Q92

You have three capacitors, each of $2\ \mu\text{C}$. In which of the following combinations of the three capacitors, the resultant capacitance is $5\ \mu\text{C}$?

A

all three capacitors in series

B

two capacitors are in series, one in parallel

C

two capacitors are in parallel, one in series

D

all three capacitors in parallel

Q93

For an adiabatic process, the first law of thermodynamics can be written as:...

A

work done by the system = decrease in internal energy of system

B

work done by the system = increase in internal energy of system

C

work done on the system = decrease in internal energy of system

D

work done on the system = decrease in internal energy of system + heat released

Q94

A full wave rectifier passes _____ into positive cycles

A

lower half cycle

B

upper half cycle

C

both cycles

D

none of them

Q95

A particle moves from point $P(1,2,3)$ to $Q(2,1,4)$ under the action of a constant force $F = (2i + j + k)$, work done by force is

A

2 J

B

4 J

C

16 J

D

8 J

Q96

An a.c. generator consists of a coil of 50 turns and an area 2.5 m^2 rotating at an angular speed of 60 rad s^{-1} in a uniform magnetic field of 0.3 T between two fixed pole pieces. What is the flux through the coil, when the current is zero

A

Maximum

B

Minimum

C

Zero

D

Independent

Q97

In an A.C. coordinate potentiometer, the currents in the phase and quadrature potentiometer are adjusted to be

A

Out of phase by 90°

B

Out of phase by 60°

C

Out of phase by 30°

D

Out of phase by 0°

Q98

Which radiation is used in greenhouse effect

A

UV

B

IR

C

x-rays

D

gamma-rays

Q99

$e/m =$

A

mv/Br

B

v/Br

C

r/Bv

D

B/vr

Q100

A longitudinal standing wave, in second harmonic mode, is established in a tube open at only one end. The frequency of the standing wave is 660 Hz, and the speed of sound in air is 343 m/s. What is the length of the tube?

A

twice as fast

B

half as fast

C

four times as fast

D

the same

Q101

Electric field at the centre of square when $1\mu\text{C}$ charge are placed at its each corner is

A

Zero

B

2 Volt/m

C

2 Volt/m

D

4 Volt/m

Q102

Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.

A

any doubler

B

any tripler

C

any multiplication

D

none of them

Q103

When gamma photon is entered in nucleus it_____

A

de-excite the atom

B

excite the atom

C

scatter by atom

D

none of these

Q104

A stationary wave is formed in a pipe which is open at one end. If length of pipe is 5 cm, then what is the maximum possible wavelength of the wave.?

A

5 cm

B

10 cm

C

15 cm

D

20 cm

Q105

Internal resistance of a battery is _____ ohm, if, $E=10V$, $V_t=9V$, $I=1A$

A

1

B

0.1

C

0.01

D

None of these

Q106

Lorentz force in electric and magnetic field is

A

$$F = qv[E+B]$$

B

$$qE[v+B]$$

C

$$qvB$$

D

$$q[E+vb]$$

Q107

Internal energy remains same throughout the process in

A

adiabatic process

B

isothermal process

C

cyclic process

D

both (i) and (ii)

Q108

If magnetic field is doubled then magnetic energy density becomes

A

four times

B

two times

C

three times

D

six times

Q109

Radon-222 has 136 neutrons, how many neutrons are there in Radon-220

A

131

B

134

C

136

D

none of these

Q110

Which set of elements have three isotopes

A

O,H

B

O,Cl

C

Cl,Hg

D

All of them

Q111

A bullet moving with a speed of 100 ms^{-1} can just penetrate two planks of equal thickness. Then, the number of such planks penetrated by the same bullet when the speed is doubled will be:

A

6

B

10

C

4

D

8

Q112

A capacitor stores $5.3 \times 10^{-5} \text{ C}$ of charge when connected to a 6.0-V battery. How much charge does the capacitor store when connected to a 9.0-V battery?

A

79.5 μC

B

35.3 μC

C

79.5 pC

D

35.3 pC

Q113

The angular acceleration is maximum when

A

$r = \text{maximum}$

B

$r = 0$

C

$r = 1$

D

none of these

Q114

Oxidation number of an ion with single element is same as

A

Ionic radius

B

Charge on Ion

C

Number of electrons in ion

D

Number of protons in ion

Q115

The reaction of two similar carbonyl compounds to give aldol product is called as ____?

A

Condensation reaction

B

Dehydration reaction

C

Disproportionation reaction

D

All of these

Q116

All elements get their stabilization to attain nearest ____ configuration

A

alkali metals

B

noble metals

C

alkaloids

D

Noble gases

Q117

Temperature of the surrounding falls during_____?

A

Endothermic reactions

B

Exothermic reactions

C

Exergonic reactions

D

None of these

Q118

Le Chatelier Principle is about

A

Reaction Mixture

B

Reactants

C

Equilibrium Mixture

D

Products

Q119

The number of neutrons in H_2SO_4 are

A

5

B

49

C

48

D

44

Q120

Which of the following reactions are not given by benzene?

A

Elimination

B

Addition

C

Substitution

D

Dehydration

Q121

Which of the following method is used to prepare acetic acid ?

A

Distillation

B

Fermentation

C

Dehydration

D

Ozonolysis

Q122

In the rate equation $R=k[A]^a[B]^b$, a and b as exponents decides

A

Direction of reaction

B

Extent of Reaction

C

Order of Reaction

D

Temperature of Reaction

Q123

The presence of double bond in a compound shows that the compound has_____?

A

Saturation

B

All single bonds

C

Unsaturation

D

Substitution

Q124

Which of the following element is not usually present in all proteins?

A

Carbon

B

Hydrogen

C

Nitrogen

D

Sulphur

Q125

Find the amphoteric oxide

A

CaO₂

B

CO₂

C

SnO₂

D

SiO₂

Q126

Which of the following is an example of Nucleophile?

A



B



C



D



Q127

What is the color of silver acetylide, $\text{AgC}\equiv\text{CAg}$?

A

Red

B

White

C

Brown

D

Pinkish

Q128

Sulphate ion is

A

Triangular Planar

B

Cubic

C

Cubic Face Centred

D

Tetrahedral

Q129

The simplest member of organic compounds is?

A

Methanol

B

Methane

C

Formaldehyde

D

Formic acid

Q130

In which of the following body part protein is not present ?

A

Skin

B

Hair

C

Nails

D

Bones

Q131

Reduction of carboxylic acids into alkanes in the presence of HI/P, COOH is reduced to_____?

A

CH₄

B

C₂H₆

C

CH₂

D

None of these

Q132

Phenol was obtained from _____ first time?

A

Coke

B

Pitch

C

Aromatic compounds

D

Coal tar

Q133

Which pair shows hydrogen bonding among them

A

ammonia & carbon

B

acetone and Ker

C

acetone and chloroform

D

water & Neon

Q134

A substance which does not appear in balanced chemical reaction is called

A

Buffer

B

Spectator Substance

C

Reaction Intermediate

D

None of these

Q135

Heat absorbed by a substance at constant pressure is equal to__?

A

ΔG

B

ΔH

C

ΔE

D

$\Delta H - \Delta E$

Q136

_____ is used to measure atomic radii

A

Gamma rays

B

alpha rays

C

X-rays

D

beta rays

Q137

The reaction in which a nucleophile replaces another atom present in a compound is called as ____?

A

Nucleophilic elimination reaction

B

Nucleophilic addition reaction

C

Nucleophilic substitution reaction

D

All of these

Q138

Which of the following isomerism is present in $\text{CH}_3\text{CH}_2\text{OH}$ and CH_3OCH_3 ?

A

Metamerism

B

Chain isomerism

C

Tautomerism

D

Functional group isomerism

Q139

Which one of them is used as an automobile antifreeze

A

Ethanol

B

ethene

C

ethylene glycol

D

propene

Q140

The bonding pair of electron are equally shared b/w the atoms in

A

HF

B

HCl

C

H₂O

D

H₂

Q141

In the production of wrought iron Mg Si and P are removed in the form of

A

Oxides

B

Silicates

C

Slag

D

Carbonates

Q142

The name protein is derived from _____ word proteios meaning _____.

A

Greek, Important.

B

French, Prime Importance

C

Greek, Functional

D

Greek, Prime Importance

Q143

Due to less polarizability of Fluorine, it boils at _____ C

A

-188.1

B

188.1

C

184.4

D

184.4

Q144

NaNO_3 and CaCO_3 are

A

allotropes

B

amorphous

C

isomorphous

D

polymorphous

Q145

Which of the following compounds can be prepared by using grignard reagents?

A

Alkanes

B

Alcohols

C

Carboxylic acids

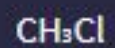
D

All of these

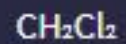
Q146

What is the formula of chloroform?

A



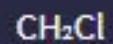
B



C



D



Q147

The radius of an electron orbit in a hydrogen atom is of the order of

A

1-8 m

B

1-1 m

C

1-11 m

D

1-13 m

Q148

What one is the correct geometry of acetal?

A

Trigonal

B

Linear

C

Tetrahedral

D

Square planer

Q149

Kinetic Energy is the sum of

A

Rotational & Vibrational

B

Translation & Rotational

C

Rotational, Vibrational and Translation

D

All of these

Q150

Aldehyde react with Ammonia and form_____?

A

Amine

B

Imine

C

Nitrile

D

Hydrazones

Q151

Heat of combustion is always a_____?

A

Exothermic reaction

B

Endothermic reaction

C

Spontaneous reaction

D

nonspontaneous reaction

Q152

When a catalyst is added to a reversible reaction, at equilibrium state the value of equilibrium constant

A

decreases

B

Increases

C

Remains unchanged

D

First decrease then increase

Q153

_____conducts nerve impulse in brain

A

serotonin

B

aspartame

C

ascorbic acid

D

hydrazine

Q154

Alkyl halides generally give which type of elimination reactions?

A

alpha-elimination

B

gamma-elimination

C

beta-elimination

D

syn-elimination

Q155

Pentene has how many isomers?

A

2

B

1

C

5

D

3

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Q156

Order of reaction can be determined

A

Theoretically

B

Experimentally

C

Summing up the exponents of rate equation

D

All of these

Q157

Dalton's law of partial pressure is used to derive the relation between K_c and

A

Temperature

B

Universal Gas constant

C

Δn

D

K_p

Q158

In the presence of KF, AlF_3 is soluble in HF, find the complex formed

A

$\text{K}_3[\text{AlF}_6]$

B

AlH_3

C

$\text{K}[\text{AlF}_3\text{H}]$

D

$\text{K}_3[\text{AlF}_3\text{H}_3]$

Q159

Kinetic molecular theory was proposed by

A

Berzelius

B

Boltzmann

C

Bernoulli

D

Maxwell

Q160

Caustic Soda is made by electrolysis of concentrated solution of NaCl in

A

Nelson's Cell

B

Hg - Cell

C

Castner Kellner Cell

D

All of these

Q161

The tendencies of elements to have relation with each other can be understood by

A

Lowry concept

B

Pauling concept

C

Lewis concept

D

Arrhenius concept

Q162

Aldehydes and ketones react with hydroxyl amine and produce?

A

Imine

B

Oxime

C

Aldole

D

Nitrile

Q163

Lions _____ in Africa.

A

live

B

living

C

are living

D

lives

Q164

When Maria saw the _____ sign on the box, she did not touch the box.

A

strange

B

danger

C

new

D

written

Q165

I am _____ tea now.

A

taking

B

takes

C

took

D

take

Q166

I _____ him for a long time.

A

know

B

have known

C

am knowing

D

knew

Q167

Had you worked hard (A)/ from the beginning (B)/ of the term (C)/ you will have passed. (D)

A

Had you worked hard

B

from the beginning

C

of the term

D

you will have passed.

Q168

I think _____ man over there is very ill. He can't stand on his feet.

A

a

B

an

C

the

D

no article

Q169

My friend _____ (suffer) from cholera since August.

A

suffer

B

suffered

C

suffering

D

is suffering

Q170

Choose the correct sentence.

A

Did you know that they're leaving the city for good.

B

Did you know that they're leaving the city for good?

C

Did you know that the'yre leaving the city for good?

D

Did you know that theyre leaving the city for good.

Q171

The young widow always _____ white clothes.

A

wear

B

wears

C

was wearing

D

would wear

Q172

nemesis

A

associate

B

antagonist

C

soul-mate

D

ally

Q173

Choose the correct spelling of the word

A

believe

B

belive

C

bileve

D

beleave

Q174

The old man _____ (yell) at the boys who teased him.

A

yell

B

yelled

C

yelling

D

yells

Q175

Mr. Jones _____ the company since 1990.

A

runs

B

running

C

has run

D

ran

Q176

His shabby clothes and unkempt hair gave him a _____ appearance.

A

discontented

B

disreputable

C

disrespectful

D

disputatious

Q177

Choose the correct spelling of the word

A

Shekspeare

B

Shakspare

C

Shakespare

D

Shakespeare

Q178

Choose the correct sentence.

A

John asked, "when are we going on a vacation?"

B

John asked "When are we going on a vacation?"

C

John asked, when are we going on a vacation?

D

John asked, "When are we going on a vacation?"

Q179

Sam _____ in the garden now.

A

digs

B

digging

C

is diging

D

is digging

Q180

She will _____ her lesson for two months next week.

A

has learnt

B

have been learning

C

has been learning

D

has been learns

Q181

Fact 1 A boy have a four cars Fact 2 Two of the cars are red Fact 3 He have one sports car If the above three statements are facts than which of the following statement will also be a fact I. The boy have red sports car II. He have 2 corolla III. His favorite color is red

A

Only I and II

B

Only II

C

Only III

D

None of the statement is a fact

Q182

Statements : Some papers are pens. Angle is a paper. Conclusions : I. Angle is not a pen. II. Angle is a PEN

A

Only conclusion II follows

B

Either I or II follows

C

Neither I nor II follows

D

Both I and II follows

Q183

In which year Pakistan and China joint Venture of JF7 Thunder Aircraft started?

A

1997

B

2003

C

1999

D

Both A and B

Q184

Renown , Reputation, Abeyance, ?

A

Misery

B

Humble

C

Discontinuation

D

Best

Q185

I. Kate Winslet categorically has stated that she will work on serious roles in the film. II. The last movie of Kate Winslet, in which she was casted as fashion model, was not successful.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect.

C

Both statements I and II are independent causes

D

Both statements I and II are the effects of independent cause.

Q186

Statement The Management of School M has decided to give free breakfast from next academic year to all the students in its primary section through its canteen even though they will not get any government grant. Courses of Action (I) The school will have to admit many poor students who will seek admission for the next academic year. (II) The canteen facilities and utensils have to be checked and new purchases to be made to equip it properly. (III) Funds will have to be raised to support the scheme for years to come.

A

Only II and III follows

B

Only III and I follow

C

Only I and II follow

D

Only I follows

Q187

Country with the highest muslim population is _____

A

Pakistan

B

Malaysia

C

Indonesia

D

Iran

Q188

Statement Should the public sector undertakings be allowed to adopt a hire-and-fire policy?
Arguments (I) Yes, as this will help the public sector undertakings to get rid of non-performing employees and will also help to reward the performing employees. (II) No, the management may not be able to implement the policy in an unbiased manner and the employees will suffer due to the high-handedness of the management.

A

If only argument I is strong.

B

If only argument II is strong

C

If both I and II are strong.

D

If neither I nor II is strong

Q189

Statement: There has been a high increase in the incidents of atrocities against women in the city during the past few months. The police authority has been unable to nab the culprits who are committing crime against women.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect

C

Both the statements I and II are independent causes

D

Both the statements I and II are effects of independent causes

Q190

If a heterozygous individual shows the complete affect of both alleles, the type of inheritance would be?

A

Complete dominance

B

Non dominance

C

Incomplete dominance

D

codominance

Q191

To form a female zygote, the sperm cell must contribute which chromosome?

A

X

B

2X

C

Y

D

XY

Q192

For a protein molecule of 2000 amino acids, the mRNA will have a length of how many nucleotides?

A

3000

B

2000

C

6000

D

5000

Q193

Which quantity is a scalar quantity

A

angular displacement

B

angular velocity

C

angular acceleration

D

none of these

Q194

Which of the following is a type of rectifier

A

half wave

B

full wave

C

bridge

D

All of the above

Q195

Internal energy of the system depends on:.....

A

initial and final states of the system and the path from initial to final state

B

initial and final states of the system only

C

initial state of the system and the path from initial to final state

D

the path from initial to final state

Q196

1 Choose which one is the different number from the following

A

125

B

131

C

130

D

138

Q197

Wave particle duality does not explain

A

momentum

B

frequency

C

mass

D

all of these

Q198

Choose the correct sentence.

A

Does your train leave before eight o'clock?

B

Does your train leave before eight o clock?

C

does your train leave before eight o'clock

D

does your train leave before eight o'clock?

Q199

An example of non-ohmic resistor is

A

Diode

B

Tungsten wire

C

Carbon resistance

D

Copper wire

Q200

Which of the following undergoes cannizzaro reaction_____?

A

Benzaldehyde

B

Acetone

C

Benzophenone

D

Benzyl alcohol

Q201

Which of the following is the rapid process

A

conduction

B

radiation

C

convection

D

all of these

Q202

The speed of sound in water is approximately:

A

1500 m/s

B

5000 m/s

C

330 m/s

D

50 m/s

Q203

A sound wave has a wavelength λ . What is the minimum possible distance between two points with phase difference 90 deg?

A

$$\lambda/2$$

B

$$3\lambda/2$$

C

$$5\lambda/2$$

D

$$5\lambda/4$$

Q204

A gas having volume of 1 dm³ is enclosed in a vessel at 1 c and 2.5 atm. This gas is allowed to expand until new pressure is 2 (No Suggestions) will be new volume if the temperature is maintained at 273 k?

A

12dm³

B

1.25dm³

C

1dm³

D

12.3dm³

Q205

In IUPAC naming alcohols are named as_____?

A

Alkanal

B

Alkyl alcohols

C

Alkanol

D

Alkenol

Q206

Brass and bronze have one metal in common?

A

Zn

B

Hg

C

Cu

D

Fe

Q207

Paramagnetic behavior of transition elements is due to presence of ____?

A

s electrons

B

Unpaired electrons

C

Paired electrons

D

Outer d electrons

Q208

An aromatic compound that can be obtained from coal tar is

A

benzene

B

toluene

C

phenol

D

diphenylmethane

Q209

The police _____ released any information about the case.

A

have

B

had

C

hasn't

D

haven't

Q210

Sucrose is converted into glucose & fructose by:

A

Invertase

B

Urease

C

Glycolysis

D

None

Q210

Sucrose is converted into glucose & fructose by:

A

Invertase

B

Urease

C

Glycolysis

D

None